PHYSICS LETTERS B

Abstracted/Indexed in: Current Contents: Physical, Chemical & Earth Sciences/INSPEC

Volume 390, numbers 1,2,3,4 **2 January 1997**

Contents

Instructions to authors v

Publisher's announcement ix

Nuclei

The inverse scattering problem and the equivalent local potential
K. Shimizu and S. Yamazaki 1

How short is too short? Constraining zero-range interactions in nucleon-nucleon scattering
D.R. Phillips and T.D. Cohen 7

Role of finite nuclei on the pairing gap of the inner crust of neutron stars
F. Barranco, R.A. Broglia, H. Esbensen and E. Vigezzi 13

$\pi\pi$ scattering amplitudes within the sub-threshold triangle
W.B. Kaufmann and G.E. Hite 18

Meson-meson scattering: $K\bar{K}$-thresholds and $f_0(980)$–$a_0(980)$ mixing
O. Krehl, R. Rapp and J. Speth 23

Resonance model study of strangeness production in *pp* collisions
K. Tsushima, A. Sibirtsev and A.W. Thomas 29

Double beta decay and the proton-neutron residual interaction
J.G. Hirsch, P.O. Hess and O. Civitarese 36

Surveying the nuclear caloric curve
Y.-G. Ma et al. 41

Fine structure of the $E1$ response in ^{140}Ce below the particle threshold
R.-D. Herzberg et al. 49

Particles and fields

Wave functions for the general type II cosmology
T. Christodoulakis, G. Kofinas, E. Korfiatis and A. Paschos 55

Fixed versus random triangulations in 2D Regge calculus
C. Holm and W. Janke 59

On the use of classical configurations as subcritical bubbles
I. Vilja 64

Do the profile function singularities explain the high energy reflection of fermions in a phase transition?
J. Rodríguez-Quintero 69

Preheating and vacuum metastability in supersymmetry
A. Riotto, E. Roulet and I. Vilja 73

The Universe after inflation: the wide resonance case
S.Yu. Khlebnikov and I.I. Tkachev 80

Evolution of primordial magnetic fields
K. Dimopoulos and A.-C. Davis 87

Electroweak baryogenesis and constraints on left-handed Majorana neutrino masses
U. Sarkar 97

Semi-local cosmic strings and the cosmological constant problem
J.D. Edelstein 101

Generic current-carrying strings
A.-C. Davis and W.B. Perkins 107

Black hole spectrum: continuous or discrete?
J. Mäkelä 115

The standard model within non-associative geometry
R. Wulkenhaar 119

On topological field theories and duality
J. Stephany 128

Superbranes
P.S. Howe and E. Sezgin 133

Four-dimensional high-branes as intersecting *D*-branes
E. Bergshoeff, M. de Roo and S. Panda 143

(Continued inside)

0370-2693(19970102)390:1-4;1-K

PHYSICS LETTERS B

Volume 390, numbers 1,2,3,4 **2 January 1997**

Contents

(Continued from page 4 of cover)

On the Dirac–Born–Infeld action for D-branes
M. Cederwall, A. von Gussich, A. Miković, B.E.W. Nilsson and A. Westerberg 148

Restoring reality for the self-dual $N = 2$ string
J. Bischoff and O. Lechtenfeld 153

On aspects and implications of the new covariant 4D, $N = 1$ Green-Schwarz σ-model action
S.J. Gates, Jr. 161

Non-trivial fixed points of the renormalization group in six dimensions
N. Seiberg 169

Coupling supergravity to non-supersymmetric matter
J.A. Teschner 172

Superalgebras in $N = 1$ gauge theories
P. Ramond 179

Remarks on excited states of affine Toda solitons
G.M. Gandenberger and N.J. MacKay 185

Three-dimensional description of the $\Phi_{1,3}$ deformation of minimal models
I.I. Kogan 189

The complete Faddeev-Jackiw treatment of the $U_{EM}(1)$ gauged SU(2) WZW model
J.E. Paschalis and P.I. Porfyriadis 197

Multi-instanton check of the relation between the prepotential $\mathcal{F}$ and the modulus u in $N = 2$ SUSY Yang-Mills theory
N. Dorey, V.V. Khoze and M.P. Mattis 205

Basis-independent measures of R-parity violation
S. Davidson and J. Ellis 210

Production of two non-conjugate leptoquarks in e^-e^- collisions
F. Cuypers, P.H. Frampton and R. Rückl 221

Neutrino radiative decay in an external electromagnetic field via vector leptoquark
N.V. Mikheev, L.A. Vassilevskaya and M.L. Zilberman 227

Constraints on supersymmetric models from the muon anomalous magnetic moment
M. Carena, G.F. Giudice and C.E.M. Wagner 234

Excited state Destri–De Vega equation for sine-Gordon and restricted sine-Gordon models
D. Fioravanti, A. Mariottini, E. Quattrini and F. Ravanini 243

A numerical study of SU(3) charge-two monopoles with minimal symmetry breaking
A.S. Dancer and R.A. Leese 252

$B \to X_s \tau^+ \tau^-$ in a two-Higgs doublet model
Y.-B. Dai, C.-S. Huang and H.-W. Huang 257

Radiative neutrino decays in very strong magnetic fields
M. Kachelrieß and G. Wunner 263

SU(3) latent heat and surface tension from tree level and tadpole improved actions
B. Beinlich, F. Karsch and A. Peikert 268

The $O(g^6)$ coefficient in the thermodynamic potential of hot SU(N) gauge theories and MQCD
F. Karsch, M. Lütgemeier, A. Patkós and J. Rank 275

The QCD string with quarks in external electromagnetic fields
S.I. Kruglov 283

A confinement model calculation of $h_1(x)$
V. Barone, T. Calarco and A. Drago 287

Gauge fixing, zero-momentum modes and the calculation of masses on a lattice
V.K. Mitrjushkin 293

(Continued on preceding page)

PHYSICS LETTERS B

Volume 390, numbers 1,2,3,4 **2 January 1997**

Contents

(Continued from following page)

BHWIDE 1.00: $O(\alpha)$ YFS exponentiated Monte Carlo for Bhabha scattering at wide angles for LEP1/SLC and LEP2
S. Jadach, W. Płaczek and B.F.L. Ward 298

Correlator of the quark scalar currents and $\Gamma_{\rm tot}(H \to \text{hadrons})$ at $O(\alpha_s^3)$ in pQCD
K.G. Chetyrkin 309

Constraints on CP violating four-fermion interactions
X.-G. He and B. McKellar 318

Quantitative tests of color evaporation: charmonium production
J.F. Amundson, O.J.P. Éboli, E.M. Gregores and F. Halzen 323

Hidden structure in a Lagrangian for hyperfine splitting of the heavy baryons
M. Harada, A. Qamar, F. Sannino, J. Schechter and H. Weigel 329

The strong coupling constants of excited positive parity heavy mesons in light-cone QCD
T.M. Aliev, N.K. Pak and M. Savcı 335

The electromagnetic masses of charmed pseudoscalar mesons
A.N. Ivanov and N.I. Troitskaya 341

QCD sum rules for masses of excited heavy mesons
Y.-B. Dai, C.-S. Huang, M.-Q. Huang and C. Liu 350

The matrix element of the transverse component of the bilocal vector current and its parton interpretation
A. Harindranath and W.-M. Zhang 359

QGP formation and strange antibaryons
J. Letessier, J. Rafelski and A. Tounsi 363

On non-Abelian Thomas-Fermi screening
G. Alexanian and V.P. Nair 370

How to estimate the number of Pomerons/rescatterings
A. Rostovtsev and M.G. Ryskin 375

Compatibility of a model for the QCD-Pomeron and chiral-symmetry breaking phenomenologies
A.A. Natale and P.S. Rodrigues da Silva 378

Chiral symmetry breaking in QCD: a variational approach
C. Arvanitis, F. Geniet, J.-L. Kneur and A. Neveu 385

Higher-order hadronic contributions to the anomalous magnetic moment of leptons
B. Krause 392

Analysis of low-x gluon density from the F_2 scaling violations
M.B. Gay Ducati and V.P.B. Gonçalves 401

Model-independent determination of the hadron elastic scattering at high energy and small momentum transfer
P. Gauron, B. Nicolescu and O.V. Selyugin 405

Single spin asymmetry for the Drell-Yan process
N. Hammon, O. Teryaev and A. Schäfer 409

QCD corrections to $b \to s\, e^+ e^-$ decay
C.-D. Lü and H.-W. Huang 413

The self-penguin contribution to $K \to 2\pi$
A.E. Bergan and J.O. Eeg 420

Decay of $B_c^{*+}(3S) \to B^+ D^0$
V.V. Kiselev 427

$\mathcal{CP}$ violation in $W\gamma$ and $Z\gamma$ production
S. Dawson, X.-G. He and G. Valencia 431

Analyzing the nucleon spin in weak interaction processes at HERA energies
M. Maul and A. Schäfer 437

(Continued on preceding page)

PHYSICS LETTERS B

Volume 390, numbers 1,2,3,4 **2 January 1997**

Contents

(Continued from following page)

He production in 158 A GeV/c Pb on Pb interactions
EMU01 Collaboration 445

Errata

Constraints on cosmic electric charge asymmetry and neutrino charge from the microwave background [Phys. Lett. B 365 (1996) 175]
S. Sengupta and P.B. Pal 450

A new CP violation mechanism generated by the standard neutral Higgs boson: the $\eta \to \pi + \pi$ case [Phys. Lett. B 385 (1996) 231]
X.Y. Pham and M. Gourdin 451

Cumulative author index to volumes 381–390 452